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RTD TODAY

Resources and Technology Division
Economic Research Service
U.S. Department of Agriculture, Washington, DC

A newsletter for employees
and colleagues of RTD

MAY-JUNE 1992

FROM THE DIRECTOR'S OFFICE

We are currently engaged in two activities which I regard as critical to the longrun success of our Division:
(1) Organizational realignment, and (2) Planning for Fiscal Year 1993.

I have discussed the evolving changes in priorities of our research program in several issues of RTD Today over the last year. These changes, which I will summarize briefly, have given rise to the need to organize the Division's work differently.

First, over the last three years the Division's responsibilities have increased with initiatives in the areas of water quality, food safety, and global change. Responsibilities have also been added for evaluating the impacts of Endangered Species Act implementation, ethanol and biofuels, and integrated geographic information systems for database development and analysis.

Second, the new areas of responsibility cut across our Branches and we have formed "Core Teams" to coordinate the work. In addition the areas involve considerable interaction with other USDA and Federal Agencies. To respond to these management and coordination needs we are forming senior "Coordinator" positions located in the Branches.

Third, there is considerable merit in having Branches with comparable resources from a program planning, development, and management perspective. There is a need to periodically to realign the work to give this balance to resources and responsibilities.

Fourth, our new and expanded role in environmental risk and food safety is sufficiently different from our previous work to require a total restructuring of the Inputs Branch program. The new Environmental and Health Risk Branch will consider environmental and food risks from an economic perspective as opposed to a commodity or risk specific approach. Emphasis will be on the appropriate economic framework for addressing the demand for risk reduction, appropriate strategies for supplying risk reduction, analysis of the costs and benefits of policy alternatives, and trade implications of environmental and food safety regulations.

FOOTNOTE: RTD Branch and other units are abbreviated in this letter, as follows:

Office of the Director (OD), Agricultural Inputs and Production Systems Branch (AI&PS), Land and Capital Assets Branch (L&CA), Resource Policy Branch (RP), Water Branch (W), and Resource Indicators Branch (RI).

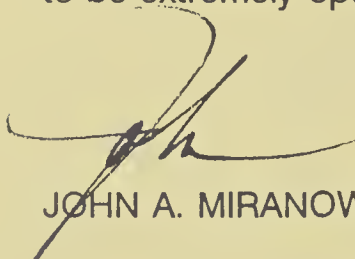
The second activity which I regard as critical to our success, program planning for Fiscal Year 1993, is already well underway in a somewhat different format than previous years. Each Section is being reviewed independently, and separate reviews were held for Core Teams on Water Quality, Food Safety, and Global Change.

The format for the workplan reviews includes: (1) a review of the work plan and output for the previous year, (2) an evaluation of cooperative research agreements and outputs during the previous year, (3) highlight of next year's plan and anticipated outputs and accomplishments, and (4) plans for completing a comprehensive product as an in-house publication during Fiscal Year 1993.

The approach we are using means we will be having 23, two-hour sessions during June and July. While I detest meetings, I feel that this type of review is essential at least once a year to give the research staff and the Director's Office an opportunity to communicate about the substance of our program. This year the realignment and redirection of parts of our program make these sessions even more important.

In the last issue of RTD Today I talked about the importance of a balanced portfolio. Our commitment to having at least one comprehensive in-house publication per Section gives emphasis to another requirement in our research output--the need to have output that "adds up" -- provides information on the bigger picture.

I am enthused by the response to both the realignment and the workplan review sessions, and I continue to be extremely optimistic about our future.



JOHN A. MIRANOWSKI

PROGRAM HIGHLIGHTS

Agricultural Trade and Environment Research Update -- As we move into the 1990's, concerns with world trade and international competitiveness are increasingly juxtaposed against concerns with the environment. Policy issues surfacing in the General Agreement on Tariffs and Trade, the North American Free Trade talks, and EC-1992 negotiations, for example, suggest that environmental problems related to agriculture may be among the major agricultural trade issues of this decade. Likewise, concerns with the competitiveness of agriculture, as well as other industries, will pervade both national and international efforts to forge laws and agreements to protect the environment.

RTD and other Divisions have responded to this new set of policy issues and are undertaking a number of trade and environment research efforts.

One research area involves the environmental effects of trade liberalization and international trade negotiations. This research area poses significant challenges. An inherent difficulty stems from the fact that a good understanding of trade requires analysis on a "macro" level. Estimates of crop- and region-specific farm input use, of input-output relationships, of local environmental and resource characteristics, and of substitution among farm production technologies is still somewhat limited for the United States and even more limited for many other regions of the world.

Research within RTD on the environmental impact of agricultural trade will proceed in a number of areas. First, a survey of the emerging theoretical and empirical literature will be conducted to set out a comprehensive conceptual framework of the major relationships and to identify future research needs. Second, the environmental dimensions of a NAFTA agreement for agriculture will be described based on production impact estimates from various empirical models. Third, the effects of changes in price variability (associated with trade liberalization) for the adoption of sustainable production

technology in developing countries will be studied. And, fourth, an empirical study will estimate historic relationships between agricultural protection and the environment across the world's agricultural economies. The producer subsidy equivalent provides a measure of the degree of agricultural protection, while fertilizer consumption and measures of land use provide proxies for the intensive and extensive nature of agricultural production.

A second research area involves the trade and investment dimensions of environmental change, policies, and regulations affecting food and agricultural production. Our understanding of supply and demand conditions, and factors affecting supply, demand, and trade, in most parts of the world is generally good. However, almost without exception, empirical models of agricultural trade do not explicitly include information on environmental and resource variables that would help to answer questions related to the environment and natural resource endowments. A global resource/trade model will be constructed to advance our analytical capability to address trade and environment issues, and to analyze the response of regional and world agricultural markets to a variety of climate and other resource change scenarios. This effort crosses several research disciplines--it is a core element of the RTD research initiative on global change.

A third area involves the design, evaluation, and measurement of public policies that have implications for both agricultural trade and the environment. Research in this area will study and develop: (1) a hierarchy of alternative policy instruments in terms of their effectiveness in achieving desired environmental goals and their effects on farm income and trade, (2) a conceptual framework to guide the assembly of environmental policy information into standard measures that can be compared over time and across countries, and (3) policy solutions to the control of transboundary and global environmental and resource management problems related to agricultural production and trade relations.

Finally, there are important long-run and dynamic relationships between agricultural trade, natural resources, and environmental quality. Research in this area focuses on issues of sustainability, which determines, in part, a country's long-run competitiveness. An understanding of sustainability requires investigation into the dynamics and feed-back effects of the relationships among production practices, productivity, environmental quality/degradation, and technological change. A contribution to this line of research will be made by empirically adjusting productivity measures to account for environmental impacts of agricultural production.

All of these resource and policy linkages between trade and the environment are multidimensional, interrelated, and complex. They call for ever-stronger linkages among economists working on agricultural production, natural resources, trade, and agricultural and environmental policy.

EVENTS AND ACTIVITIES

Departmental Award

RTD's Work Force Diversity Team received USDA's Superior Service Award, the Department's second highest award, from Secretary Edward Madigan at a ceremony on June 10 in the Departmental Auditorium.

Betsey Kuhn, Group Leader; Leslee Lowstuter and Ken Robinson, Group Members, were recognized in the category Equal Employment Opportunity and Civil Rights, "For developing an innovative, creative, and effective program for improving work force diversity in the Economic Research Service."

The program which the Team provided leadership to had four ambitious goals:

- (1) Providing each staff member with opportunities for growth in education and personal skills in order to encourage, wherever possible, upward mobility;

- (2) Initiating a comprehensive recruiting program to identify well qualified, underrepresented minority candidates;
- (3) Contributing to the identification and training of students with abilities and interest in prospective careers in economics and the Economic Research Service; and
- (4) Fostering conditions within the workplace to augment staff members' appreciation of diversity in the workplace and among clientele groups.

Progress on these goals has been reported in depth during the year in RTD Today. The highlights include: (1) developing positions which provide upward mobility for staff in secretarial positions, (2) an Agency workshop, "New Ideas in Professional Opportunities for Women and Minorities," with participation of 16 different colleges and universities from across the country and specific follow-up activities from the workshop, including an ambitious summer intern program, (3) the development and implementation of the Coops for Action program and an Agency agreement with the National Consortium for Educational Access to assist in identifying and supporting high quality minority PhD candidates in the economics profession, and (4) a Division workshop on "Cultural Diversity in the Workplace" and follow-up focus groups to identify concerns and problems with respect to the workplace environment, and the development and implementation of an action plan to address staff concerns.

RTD is especially proud of its Workforce Diversity Program, and the leadership provided by the Team is very deserving of the high honor it received.

AERE Workshop

Together with EPA and NOAA, RTD provided support and RTD researchers (Michael LeBlanc, Marc Ribaud, and Stephen Crutchfield) participated in the 1992 Association of Environmental and Resource Economists' Workshop. This year's workshop, **Benefits Transfer: Procedures, Problems, and Research Needs**, was held outside Salt Lake City, Utah. The workshop addressed the concept of using information from existing non-market valuation studies to develop value estimates for other valuation problems. Discussion focused on the adequacy of existing methods and valuation studies for performing benefits transfer and the research needed to enhance benefits transfers.

The structure of the workshop included three overview papers by David Brookshire, Leland Deck, and Edward Morey to set the context in which the workshop was to be conducted. The bulk of the workshop consisted of a set of case studies focusing on environmental benefits associated with surface and groundwater quality. Specific studies ranged from the effects of acid rain on water quality to protecting groundwater quality affected by agricultural production. A wrap-up panel of Trudy Ann Cameron, Alan Krupnick, and James Opaluch summarized the workshop. Theoretical and methodological results from the proceedings shed needed light on key research areas, particularly the aggregation of micro studies to assess regional or national impacts. Results from the workshop will aid RTD and other ERS researchers in their valuation of benefits associated with changes in water quality, food safety, and ethanol production. Proceedings from the workshop will be published and made available in the coming year.

Visiting Scholars

Professors Rolf Fare and Shawna Grosskopf, Southern Illinois University, will be with RTD during July and August. The focus of their work will be to measure productivity growth in a way which technical inefficiency can be integrated in a theoretically consistent and empirically tractable way. A further objective of the research project is to extend the current model of production to allow for outputs that are undesirable, for example, water contamination. This work will lead to measures of "sustainable" productivity growth in agriculture. A series of lectures on analysis and implementation of the techniques used in this research is planned. Eldon Ball will be coordinating activities of Professors Fare and Grosskopf.

Roy Gardner, Professor of Economics at Indiana University, will also be visiting during June and August. Professor Gardner is involved in cooperative research on the role of prices in the survival and efficiency of common pool resources. An aspect of this research will involve controlled experiments in a behavior laboratory as a preliminary test of the behavioral consequences of various price reform programs. Professor Gardner has presented a RTD seminar on his work and is available to interact with RTD staff on variety of resource research projects underway, especially in areas of global change and water quality.

Summer Interns

RTD's 1992 Summer Internship Program includes 16 interns and one Cooperative Education student. They represent 15 schools in 14 states and approximately 75 percent are women or minorities. Most major in either economics or agricultural economics with interests in environment and natural resource economics. The Program is designed to give interns, both undergraduate and graduate students, an opportunity to work with RTD researchers on a variety of projects. These projects include, among others, building a food safety database, revising multifactor productivity growth indices to account for environmental impacts, and analyzing U.S. vegetable production systems under risk. RTD interns will participate with other ERS interns in a telephone survey of subscribers to Farmline, an ERS magazine aimed at a popular audience.

RTD had a competitive process to select the current group of interns. A panel evaluated the qualifications of student applicants and also rated the proposals made by RTD staff for intern projects. Since this is the first time some of the interns have worked in Washington, DC, each intern is paired with a "buddy" who has volunteered to help make the intern's transition from school to working at ERS as smooth as possible. In addition to providing information about working at ERS, buddies have sometimes helped interns find housing and offered suggestions about upcoming social events in the Washington area.

Throughout the summer, interns are scheduled to participate in a series of training/development seminars, discussions on RTD research, and ongoing ERS events. Also included among the activities are a White House tour; a visit to the Agricultural Research Center in Beltsville, Maryland; the annual RTD picnic; and a seminar on presentation and briefing skills.

RTD is making every effort to provide a "hands-on" economic research experience for interns. We hope that the experience will encourage this bright and talented group to pursue careers in research.

PEOPLE

Welcome to ...

- Roberta Atkinson (L&CA), who is the new Branch Office Manager, and was formerly with the Office of General Counsel, Agency for International Development.
- Chris Behr (L&CA), who is a summer intern, and is a graduate student in Agricultural Economics from the University of Wisconsin.
- Lisa Boyer (L&CA), who is a Cooperative Education student, and is a graduate student in Agricultural Business at South Carolina State College.
- Keith Burberry (RI), who is a summer intern, and is majoring in Mathematics at Berea College.
- Jessica Eide (RI), who is a summer intern, and is majoring in Agricultural Economics at Oregon State University.
- Carolyn Farris (OD), who is a summer intern, and is majoring in Agricultural Economics at Kansas State University.

- Carolyn Fischer (L&CA), who is a summer intern, and is a graduate student in Economics at the University of Michigan.
- Christina Fredericks (AI&PS), who is a summer intern, and is majoring in Agricultural Economics at Cornell University.
- Phuong Hoang (OD), who is a summer intern, and is a graduate student in Agricultural Economics at the University of Wisconsin.
- Shanika Hickman (OD), who is in the Stay in School Program, and is a graduate of Eastern High School, Washington, D.C.
- Rebecca Johnston (RI), who is a summer intern, and is majoring in Economics at Ohio University.
- Nick Kominos (L&CA), who is a summer intern, and is graduate student in Economics at American University.
- Ryan Moorhart (AI&PS), who is, a summer intern, and is a graduate student in Agricultural Business at South Carolina State College.
- Endi Piper (RP), who is a summer intern, and is majoring in Spanish and Economics at the University of Virginia.
- Paris Reidhead (AI&PS), who is a summer intern, and is majoring in Economics at Cornell University.
- Barbara Senatre (AI&PS), who is a summer intern, and is a graduate student in Agricultural Economics at Purdue University.
- Ellen Stroud (OD), who is a summer intern, and is an undeclared major at Roanoke College.
- Cynthia Tyler (OD), who is a summer intern, and is majoring in Economics at Ohio University.
- Anne Young (RI), who is a summer intern, and in majoring in Economics at Spelman College.

Farewell to ...

- Doug Beach (AI&PS), who transferred to the Commodity Economics Division
- Marc Carey (W), who is pursuing graduate studies in Agricultural Economics at the University of California at Davis.
- Edwina Gray (RI), who resigned.
- Sylvia Canada (OD), who joined the Food and Nutrition Service.
- Barbara Gilmartin (OD), who joined the Smithsonian Institution.
- Joel Greene (RI), who transferred to the Commodity Economics Division.

PUBLICATIONS

(October 1991 - June 1992)

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Monographs

Bajwa, Rajinder, William Crosswhite, John Hostetler, and Olivia Wright. Agricultural Irrigation and Water Use. Agriculture Information Bulletin No. 638. January 1992. 116 pp.

Butler, Gertrude and J. Peter DeBraal. Foreign Ownership of U.S. Agricultural Land Through December 31, 1991: County-Level Data. ERS Staff Report No. AGES 9217. May 1992. 128 pp.

Canning, Patrick. Farm Buildings and Farmland: An Analysis of Capital Formation. Technical Bulletin No. 1801. February 1992. 50 pp.

DeBraal, J. Peter. Foreign Ownership of U.S. Agricultural Land Through December 31, 1991. Staff Report No. AGES-9211. April 1992. 60 pp.

Kane, Sally, John Reilly, and James Tobey. Climate Change: Economic Implications for World Agriculture. Agricultural Economic Report No. 647. October 1991. 21 pp.

Knudson, Mary and LeRoy Hansen. Intellectual Property Rights and the Private Seed Industry. Agricultural Economic Report No. 654. November 1991. 19 pp.

Rogers, Denise. Leasing Farmland in the United States. Staff Report No. AGES-9159. January 1992. 16 pp.

Wunderlich, Gene. Owning Farmland in the United States. Agriculture Information Bulletin No. 637. January 1992. 14 pp.

Periodicals

Douvelis, George (Coord.). Economic Indicators of the Farm Sector: Production and Efficiency Statistics, 1990. ECIFS 10-3. May 1992. 49 pp. Contributors to the report are:

Thelma Anderson
Harold Taylor

Arthur Daugherty
Marlow Vesterby

George Douvelis

Rachel Evans

Wunderlich, Gene and Jim Carlin (Eds.). Journal of Agricultural Economics Research. Vol. 43, Nos. 3, 4. 1991.

Articles

Heck, W., D. Ratloff, and G. Frisvold. **Air Quality and the Productivity of Crops and Forests.** Agriculture and the Environment. 1991 Yearbook of Agriculture. USDA. GPO. Washington, D.C. 1991. pp. 107-119.

Heimlich, Ralph E. and Arthur B. Daugherty. **American's Cropland: Where Does it Come From?** Agriculture and the Environment. 1991 Yearbook of Agriculture. USDA. GPO. Washington, D.C. 1991. pp. 3-9.

Situation and Outlook

Periodicals

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Len Bull Mohinder Gill Noel Uri
Herman Delvo Harold Taylor Marlow Vesterby

Hexem, Roger. (Coord.) Agricultural Resources: Agricultural Land Values. Situation and Outlook Summary. April 1992. 7 pp.

Hexem, Roger. (Coord.) Agricultural Resources: Agricultural Land Values and Markets. Situation and Outlook Report No. AR-26. June 1992. 47 pp. Contributors to the report are:

Patrick Canning	J. Peter DeBraal	Roger Hexem
John Jones	Fred Kuchler	Felix Llacuna

Padgitt, Merritt (Coord.) Agricultural Resources: Cropland, Water, and Conservation. Situation and Outlook Report. No. AR-23. September 1991. 55 pp. Contributors to the report are:

Marcel Aillery	Clifford Dickason	Ralph Heimlich	C.T. Osborn
William Crosswhite	Art Daugherty	John Hostetler	Bill Quinby
Stephen Crutchfield	Noel Gollehon	Richard Magleby	Carmen Sandretto

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Babula, Ronald A., Douglas Duncan, and Utpal Vasavada. **Regional Responsiveness of Agricultural Interest Rates to U.S. Treasury Bill Rates**. Agricultural Income and Finance. Situation and Outlook Report No. AFO-43. December 1991. pp. 37-41.

Crosswhite, William and Carmen Sandretto. **Trends in Resource Protection Policies in Agriculture**. Agricultural Resources: Cropland, Water, and Conservation. Situation and Outlook Report No. AR-23. September 1991. pp. 42-49.

Daugherty, Arthur. **Flex Acres and Cropland Use**. Agricultural Outlook. AO-180. ERS, USDA. November 1991. pp. 25-27.

Gertel, Karl, John T. Scott, Jr. and John Jones. **Farmland Prices, Past and Prospective**. Agricultural Resources: Agricultural Land Values and Markets. Situation and Outlook Report No. AR-26. June 1992. pp. 37-42.

Gianessi, Leonard P., and Cynthia A. Puffer. **Reregistration of Minor Use Pesticides: Some Observations and Implications**. Agricultural Resources: Inputs. Situation and Outlook Report No. AR-25. February 1992. pp. 52-60.

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Heimlich, Ralph. **New Wetland Definition Debated**. Agricultural Outlook. AO-180. ERS, USDA. November 1991. pp. 22-25.

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- Rendleman, Matt. **Corn's Link to Sugar: HFCS.** Agricultural Outlook. AO-178. ERS, USDA. September 1991. pp. 12-14.
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- Ball, V. Eldon. **Sources of Agricultural Economic Growth and Productivity: Discussion.** Agricultural Economic Association Meetings. New Orleans, Louisiana. January 2-5, 1992.
- Buist, Henry. **Firm Relocation, Suburbanization and Central City Problems.** Western Regional Science Association Meetings. Lake Tahoe, Nevada. February 23-27, 1992.
- Canning, Patrick. **A Methodology for Environmental Impact Analysis Using Rent Data.** Western Regional Science Association Meetings. Lake Tahoe, Nevada. February 23-27, 1992.
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- Caswell, Margriet and Robbin Shoemaker. **Altering Pesticide Use to Protect Groundwater Quality.** Western Economic Association Meetings. San Francisco, California. July 9-13, 1992.
- Chambers, Robert G. and Hyunok Lee. **Externalities, Sharecropping, and Social Efficiency.** The Ownership, Tenure, and Taxation of Agricultural Land Seminar. Robert Schalkenback Foundation, Farm Foundation, ERS. Washington, D.C. October 3-4, 1991.
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